

### **REMARKS**

Reconsideration of the present application in view of the above amendments and following remarks is respectfully requested.

### **Status of the Claims**

Claims 12-29 and 33-34 are presented. Base claim 12 is amended to include functional language regarding the storage stability of cosmetic compositions of the invention versus those comprising poly- $\alpha$ -olefins prepared by homopolymerization of  $\alpha$ -olefins. Support is found throughout the specification as originally filed, *inter alia*, in Table 1, page 22. Claims 1-11 and 30-32 were previously canceled. No claims are canceled, and no new claims are added in the present action.

No new matter has been introduced.

### **Summary of the Invention as Claimed**

As presently amended, the claimed invention is drawn to a cosmetic composition comprising a mixture of poly- $\alpha$ -olefins which is produced by a dehydrating polymerization under specified reaction conditions (catalyst and temperature), using as starting material at least one primary alcohol selected from the group consisting of (a) unsaturated monofunctional alcohols, (b) branched monofunctional alcohols and (c) difunctional alcohols, **wherein the mixture of poly- $\alpha$ -olefins produced by dehydrating polymerization provides a cosmetic composition having storage-stability with respect to viscosity, as well as storage-stability with respect to separation, versus the analogous cosmetic composition comprising poly- $\alpha$ -olefins produced by homopolymerization of  $\alpha$ -olefins** (claims 12-29, 33-34). The composition comprising the so-produced mixture of poly- $\alpha$ -olefins has a high spreading value of  $>1000 \text{ mm}^2/10 \text{ min}$  (claim 33). Preferred primary alcohols include 2-ethylhexanol and isononanol (claim 34).

**Rejections under 35 U.S.C. § 102(b)**

Previously pending claims 12-29 and 33 were rejected under 35 U.S.C. § 102(b) as being anticipated by Collin (US 6,464,967). Applicants respectfully traverse the rejection.

Collin discloses a make-up composition comprising a poly- $\alpha$ -olefin (PAO) wax having a melting point ranging from 50-80 °C, prepared by **homopolymerization of alpha-olefins** having at least 10 carbon atoms. Collin discloses that her poly- $\alpha$ -olefin wax is obtained by the well-known art process of homopolymerization of pure alpha-olefins (col. 2, lines 33-38). This standard method is well-known in the art to provide a relatively narrow set of oligomeric products. There are many commercial products available which are prepared by this process, including such trade names such as Nexbase®, and INCI names such as polydecene.

Without wishing to be bound by any particular theory, applicants, including the declarant, Markus Dierker, have argued that the dehydration polymerization of a single primary alcohol (“at least one”) provides an **isomeric mixture** of olefins—or “olefin-like intermediates” (cf. previously submitted Rule 1.132 Declaration of Markus Dierker)—including both terminal-alkene-like and internal-alkene-like species (ie, analogous in reactivity to a mixture of alpha-olefins and internal olefins), the subsequent polymerization of which provides a “poly-alpha-olefin” (or, PAO) having unique cosmetic properties. Collin makes no claim of polymerizing a mixture of alpha- and internal-olefins; instead, it is always stated that any mixture is of **alpha-olefins**.

Further, the Supplemental Rule 1.132 Declaration of Markus Dierker, previously submitted, discloses that **pure alpha-olefins do not react under applicants’ reaction conditions (temperature and catalyst)**. This conclusively demonstrates that applicants’ process is not just an extension of the art-standard

alpha-olefin polymerization process (extension in the sense that the starting alpha-olefins are first prepared by dehydration of primary alcohols), but is a unique process providing a product that is substantially different from the art-standard poly-alpha-olefins.

This difference is primarily evident in the properties of the cosmetic compositions, as discussed in the Reply, dated January 28, 2010, and the first Rule 1.132 Declaration of Markus Dierker of the same date, both of which are incorporated herein by reference.

Ultimately, applicants believe that the presently amended claims define novel and non-obvious subject matter over the cited art. In order to have the time necessary to develop and organize the required comparative data and arguments to demonstrate the physical difference between the product of polymerization of alpha-olefins versus the product of dehydrating polymerization of primary alcohols, applicants petition herewith for a 6-month suspension of prosecution under 37 CFR § 1.103(a).

#### **Rejections under 35 U.S.C. § 103(a)**

Previously pending claims 12-29 and 33-34 were rejected under 35 U.S.C. § 103(a) as being obvious over Hansenne (US 5,747,009; "Hansenne") in view of Zander et al. (WO 03/035707; using US 2004/0267073 as English translation; "Zander"). Applicants respectfully traverse the rejection.

Hansenne discloses a cosmetic composition comprising an art-standard PAO. Hansenne fails to disclose PAOs prepared by applicants' dehydrating polymerization process. Therefore, the examiner joined Zander.

Zander (same assignee as present application) discloses a process for producing poly-alpha-olefins comprising (a) providing a primary alcohol, and (b)

polymerizing the primary alcohol in the presence of an acidic alumino layer silicate to form a poly-alpha-olefin.

However, applicants believe that the presently amended claims define novel and non-obvious subject matter over the cited art. In order to have the time necessary to develop and organize the required comparative data and arguments to demonstrate the physical difference between the product of polymerization of alpha-olefins versus the product of dehydrating polymerization of primary alcohols, applicants petition herewith for a 6-month suspension of prosecution under 37 CFR § 1.103(a).

### **Conclusion**

In summary, in view of the above claim amendments and remarks, applicants believe that all of the pending claims are in condition for allowance. The petitioned 6-month suspension of prosecution will allow applicants to have the time necessary to generate comparative data and formulate appropriate arguments to formally meet the Examiner's rejections. Therefore, the Examiner is respectfully requested to grant the petition, reconsider, withdraw the rejections and allow the claims.

If any additional fees are required in support of this application, authorization is granted to charge our Deposit Account No. 50-1943.

Respectfully submitted,

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Date

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